

[FIG.1]

TRANSMIT POWER  
TRANSMISSION #1  
(INITIAL TRANSMISSION)  
5 TRANSMISSION #2  
(RETRANSMISSION)  
TRANSMISSION #3  
(RETRANSMISSION)  
TIME

10

[FIG.2]

ACK/NACK SIGNAL  
CQI SIGNAL  
PACKET TRANSMISSION CONTROL SIGNAL  
15 PACKET DATA  
DL TPC COMMAND  
DEDICATED DATA CONTROL SIGNAL  
COMMON CONTROL DATA  
(CPICH, ETC.)  
20 UL TPC COMMAND  
CONTROL SIGNAL (DL TPC COMMAND)  
(CQI, ACK/NACK, ETC.)  
RECEIVED DATA  
151 SCHEDULER  
25 HS-SCCH SIGNAL  
152 BUFFER (QUEUE)  
UL TPC  
153 MODULATION SECTION

157 MODULATION SECTION  
162 MODULATION SECTION  
107 TPC COMMAND GENERATION SECTION  
OFFSET SIGNAL  
5 160 TRANSMIT POWER CONTROL SECTION  
154 TRANSMIT POWER CONTROL SECTION  
158 TRANSMIT POWER CONTROL SECTION  
163 TRANSMIT POWER CONTROL SECTION  
106 SIR MEASURING SECTION  
10 105 SEPARATION SECTION  
104 DEMODULATION SECTION  
166 TRANSMISSION RF SECTION  
103 RECEPTION RF SECTION  
  
15 [FIG.3]  
203 RECEPTION RF SECTION  
UL TPC COMMAND  
257 TRANSMIT POWER CONTROL SECTION  
258 TRANSMISSION RF SECTION  
20 204 BUFFER  
205 DEMODULATION SECTION (HS-SCCH)  
208 DEMODULATION SECTION (DPCH)  
212 CIR MEASURING SECTION  
206 DEMODULATION SECTION (HS-PDSCH)  
25 210 SIR MEASURING SECTION  
213 CQI GENERATION SECTION  
252 MODULATION SECTION  
253 MODULATION SECTION

255 MODULATION SECTION  
207 ERROR DETECTION SECTION  
209 SEPARATION SECTION  
211 TPC COMMAND GENERATION SECTION  
5 CQI SIGNAL  
ACK/NACK SIGNAL  
TRANSMISSION DATA  
DL TPC COMMAND  
RECEIVED PACKET DATA  
10 ACK/NACK SIGNAL  
RECEIVED DATA  
UL TPC COMMAND  
DL TPC COMMAND

15 [FIG.4]  
ACK/NACK SIGNAL  
CQI SIGNAL  
PACKET TRANSMISSION CONTROL SIGNAL  
301 TRANSMISSION DESTINATION DETERMINING SECTION  
20 TO BUFFER 152  
302 MCS DETERMINING SECTION  
TO MODULATION SECTION 153  
303 TRANSMIT POWER DETERMINING SECTION  
TO TRANSMIT POWER CONTROL SECTION 154  
25 304 HS-SCCH SIGNAL GENERATION SECTION  
TO AMPLIFICATION SECTION 161

[FIG.5]

HS-PDSCH TRANSMIT POWER  
TRANSMISSION #1  
(INITIAL TRANSMISSION)  
TRANSMISSION #2  
5 (RETRANSMISSION)  
TRANSMISSION #3  
(RETRANSMISSION)  
TIME

10 [FIG. 6]  
HS-PDSCH TRANSMIT POWER  
TRANSMISSION #1  
(INITIAL TRANSMISSION)  
TRANSMISSION #2  
15 (RETRANSMISSION)  
TRANSMISSION #3  
(RETRANSMISSION)  
TIME

20 [FIG. 7]  
ACK/NACK SIGNAL  
CQI SIGNAL  
PACKET TRANSMISSION CONTROL SIGNAL  
301 TRANSMISSION DESTINATION DETERMINING SECTION  
25 TO BUFFER 152  
302 MCS DETERMINING SECTION  
TO MODULATION SECTION 153  
305 CQI DIFFERENCE CALCULATION SECTION

303 TRANSMIT POWER DETERMINING SECTION

TO TRANSMIT POWER CONTROL SECTION 154

304 HS-SCCH SIGNAL GENERATION SECTION

TO AMPLIFICATION SECTION 161

5

[FIG.8]

DL QoS

TRANSMISSION #1

(INITIAL TRANSMISSION)

10 TRANSMISSION #2

(RETRANSMISSION)

TRANSMISSION #3

(RETRANSMISSION)

TIME

15

[FIG.9]

HS-PDSCH TRANSMIT POWER

TRANSMISSION #1

(INITIAL TRANSMISSION)

20 TRANSMISSION #2

(RETRANSMISSION)

TRANSMISSION #3

(RETRANSMISSION)

TIME

25

[FIG.10]

HS-PDSCH RECEPTION POWER

TRANSMISSION #1

(INITIAL TRANSMISSION)  
TRANSMISSION #2  
(RETRANSMISSION)  
TRANSMISSION #3  
5 (RETRANSMISSION)  
TIME

[FIG.11]  
ACK/NACK SIGNAL  
10 CQI SIGNAL  
PACKET TRANSMISSION CONTROL SIGNAL  
301 TRANSMISSION DESTINATION DETERMINING SECTION  
TO BUFFER 152  
302 MCS DETERMINING SECTION  
15 TO MODULATION SECTION 153  
306 IR GAIN DETERMINING SECTION  
303 TRANSMIT POWER DETERMINING SECTION  
TO TRANSMIT POWER CONTROL SECTION 154  
304 HS-SCCH SIGNAL GENERATION SECTION  
20 TO AMPLIFICATION SECTION 161

[FIG.12]  
IR TYPE H-ARQ  
CC TYPE H-ARQ  
25 IR GAIN

[FIG.13]  
RETRANSMISSION PACKET            IR GAIN

TRANSMISSION #2  
TRANSMISSION #3  
TRANSMISSION #4  
TRANSMISSION #5  
5 TRANSMISSION #6

[FIG.14]

HS-PDSCH TRANSMIT POWER  
TRANSMISSION #1  
10 (INITIAL TRANSMISSION)  
TRANSMISSION #2  
(RETRANSMISSION)  
TRANSMISSION #3  
(RETRANSMISSION)  
15 TIME

[FIG.15]

ACK/NACK SIGNAL  
CQI SIGNAL  
20 PACKET TRANSMISSION CONTROL SIGNAL  
301 TRANSMISSION DESTINATION DETERMINING SECTION  
TO BUFFER 152  
302 MCS DETERMINING SECTION  
TO MODULATION SECTION 153  
25 305 CQI DIFFERENCE CALCULATION SECTION  
303 TRANSMIT POWER DETERMINING SECTION  
TO TRANSMIT POWER CONTROL SECTION 154  
306 IR GAIN DETERMINING SECTION

304 HS-SCCH SIGNAL GENERATION SECTION  
TO AMPLIFICATION SECTION 161

[FIG.16]

5 HS-PDSCH TRANSMIT POWER  
TRANSMISSION #1  
(INITIAL TRANSMISSION)  
TRANSMISSION #2  
(RETRANSMISSION)  
10 TRANSMISSION #3  
(RETRANSMISSION)  
TIME

[FIG.17]

15 HS-PDSCH RECEPTION POWER  
TRANSMISSION #1  
(INITIAL TRANSMISSION)  
TRANSMISSION #2  
(RETRANSMISSION)  
20 TRANSMISSION #3  
(RETRANSMISSION)  
TIME

[FIG.18]

25 ACK/NACK SIGNAL  
CQI SIGNAL  
PACKET TRANSMISSION CONTROL SIGNAL  
301 TRANSMISSION DESTINATION DETERMINING SECTION

TO BUFFER 152

302 MCS DETERMINING SECTION

TO MODULATION SECTION 153

306 IR GAIN DETERMINING SECTION

5 303 TRANSMIT POWER DETERMINING SECTION

TO TRANSMIT POWER CONTROL SECTION 154

304 HS-SCCH SIGNAL GENERATION SECTION

TO AMPLIFICATION SECTION 161

10 [FIG.19A]

HS-PDSCH TRANSMIT POWER

TRANSMISSION #1

(INITIAL TRANSMISSION)

TRANSMISSION #2

15 (RETRANSMISSION)

TRANSMISSION #3

(RETRANSMISSION)

TIME

20 [FIG.19B]

HS-PDSCH TRANSMIT POWER

TRANSMISSION #1

(INITIAL TRANSMISSION)

TRANSMISSION #2

25 (RETRANSMISSION)

TRANSMISSION #3

(RETRANSMISSION)

TIME

[ FIG.19C ]

HS-PDSCH TRANSMIT POWER

TRANSMISSION #1

5 (INITIAL TRANSMISSION)

TRANSMISSION #2

(RETRANSMISSION)

TRANSMISSION #3

(RETRANSMISSION)

10 TIME

[ FIG.19D ]

HS-PDSCH TRANSMIT POWER

TRANSMISSION #1

15 (INITIAL TRANSMISSION)

TRANSMISSION #2

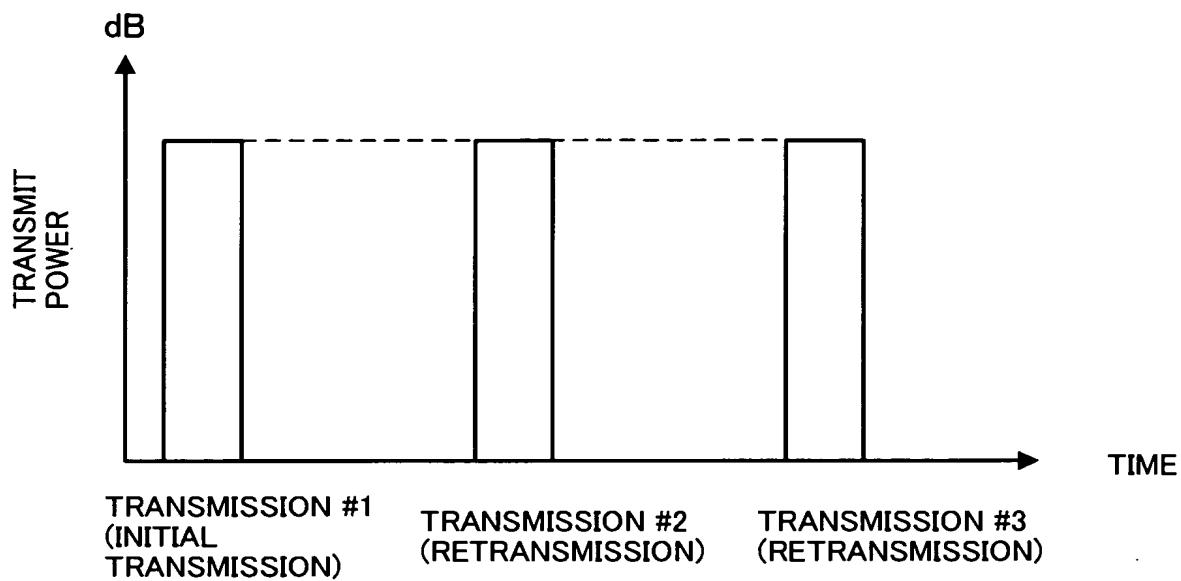
(RETRANSMISSION)

TRANSMISSION #3

(RETRANSMISSION)

20 TIME

1/16



PRIOR ART  
FIG.1

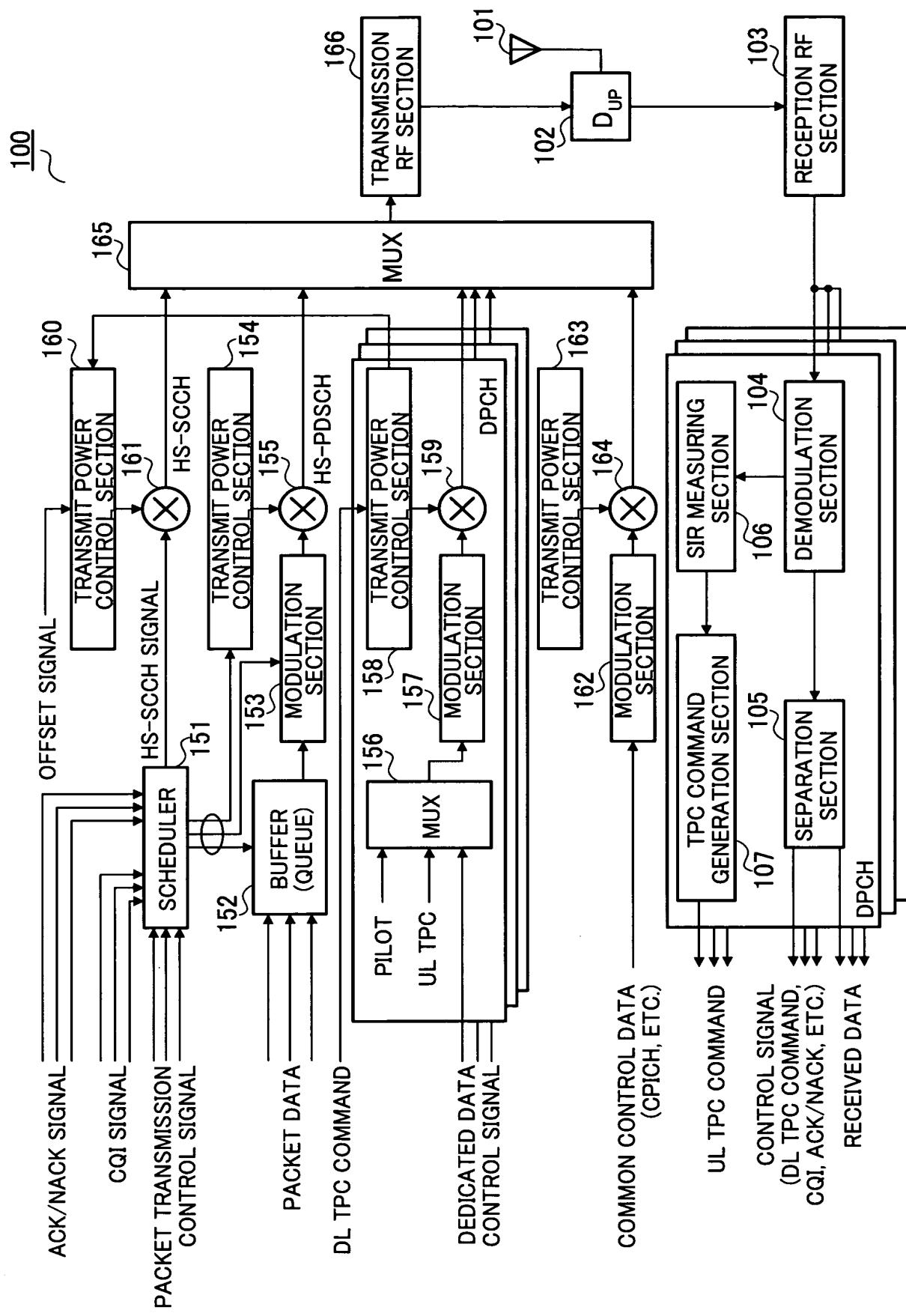


FIG.2

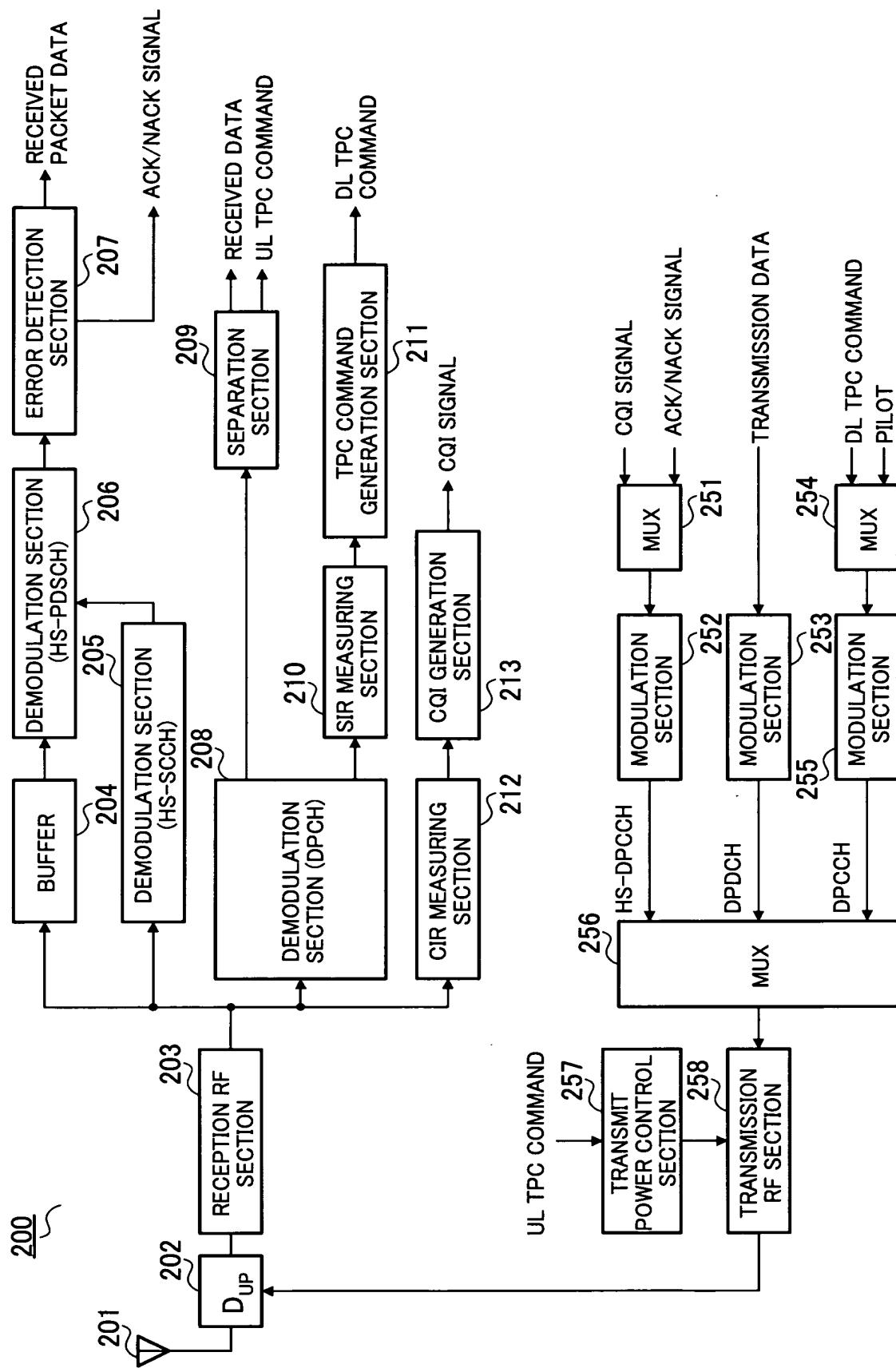


FIG.3

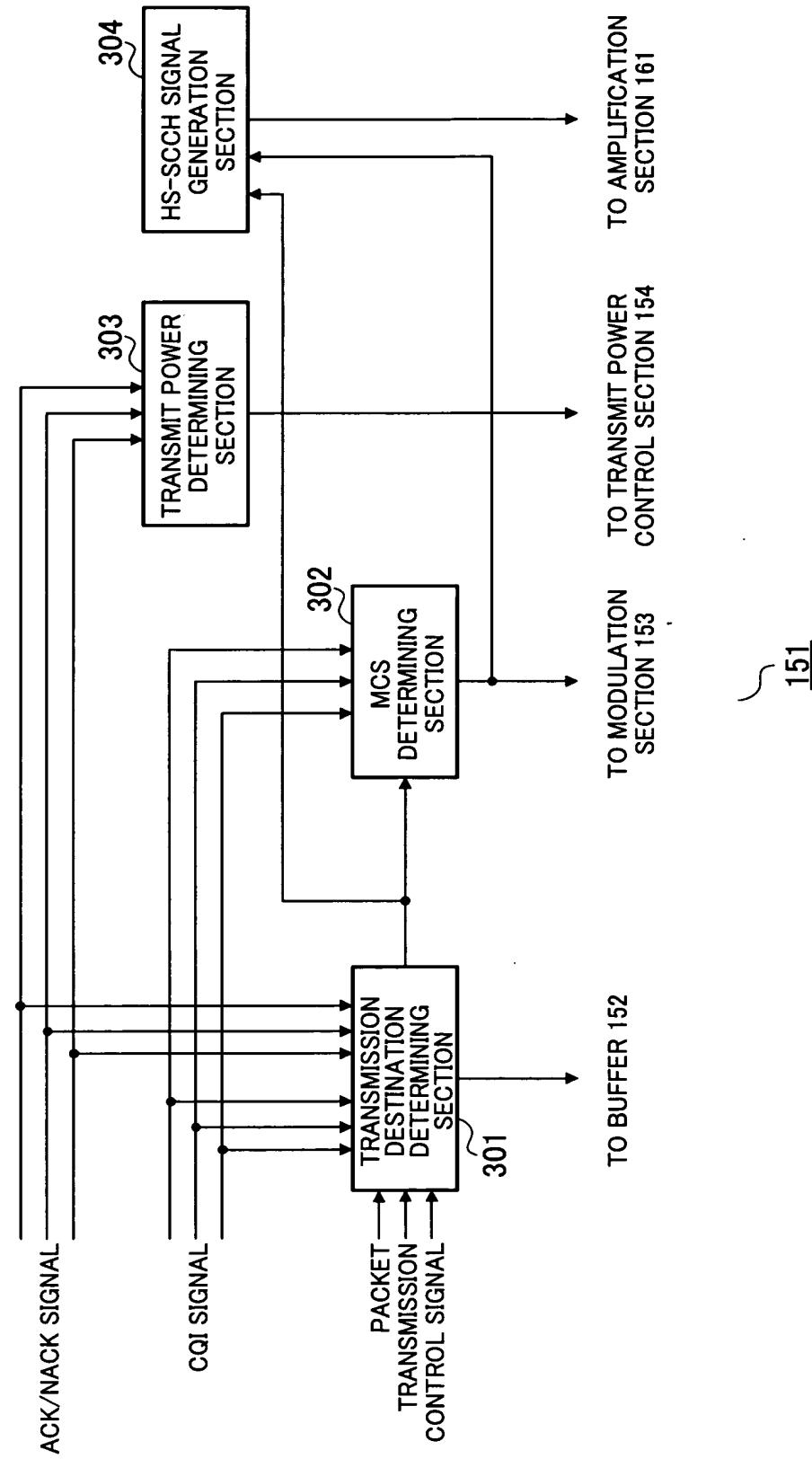


FIG.4

151

5/16

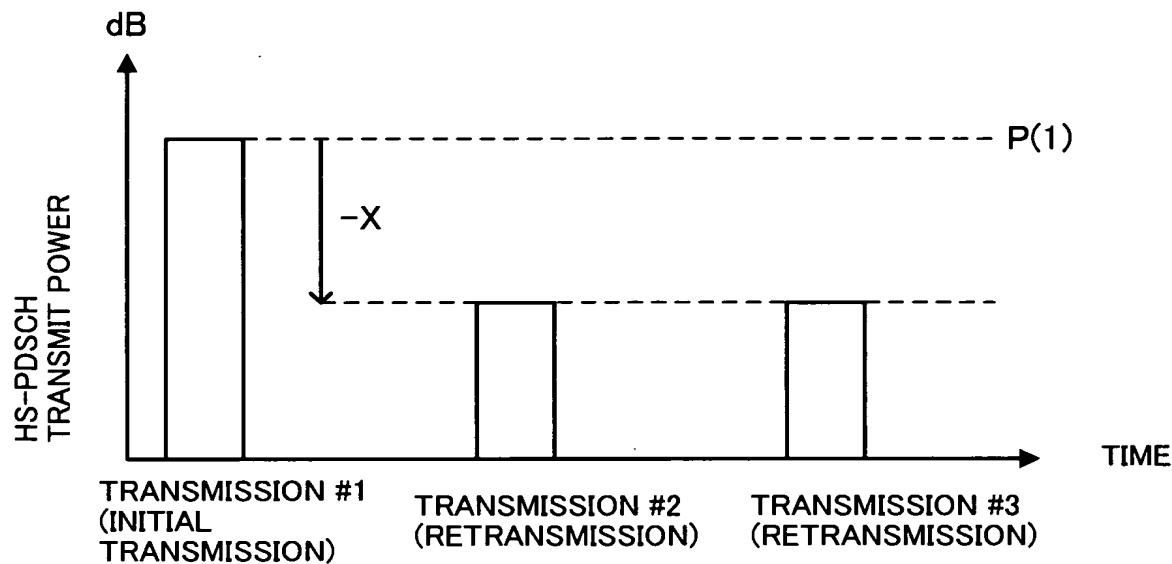


FIG.5

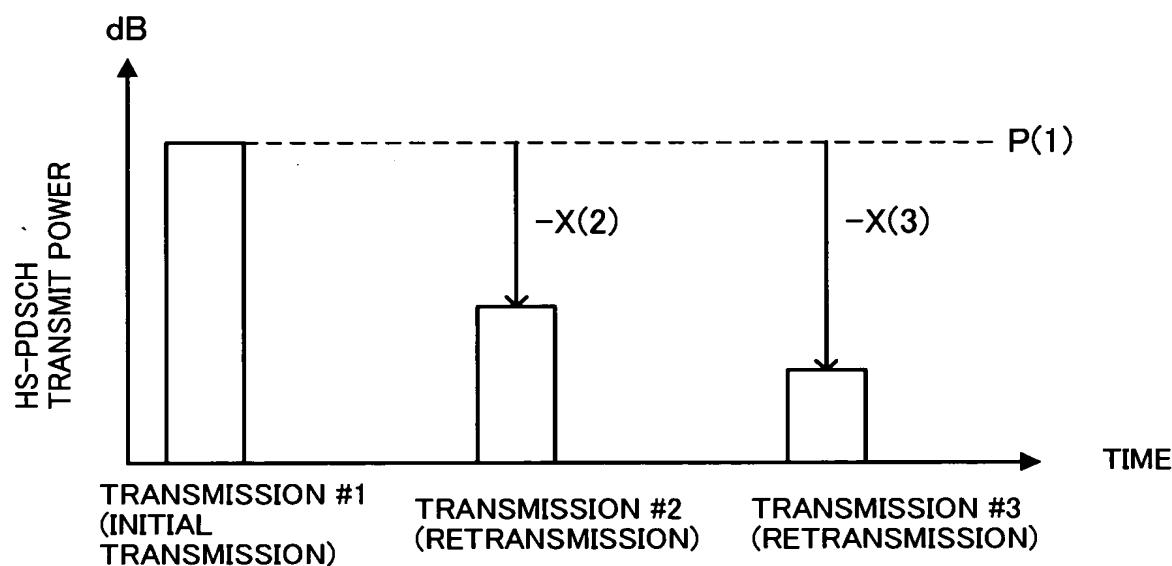


FIG.6

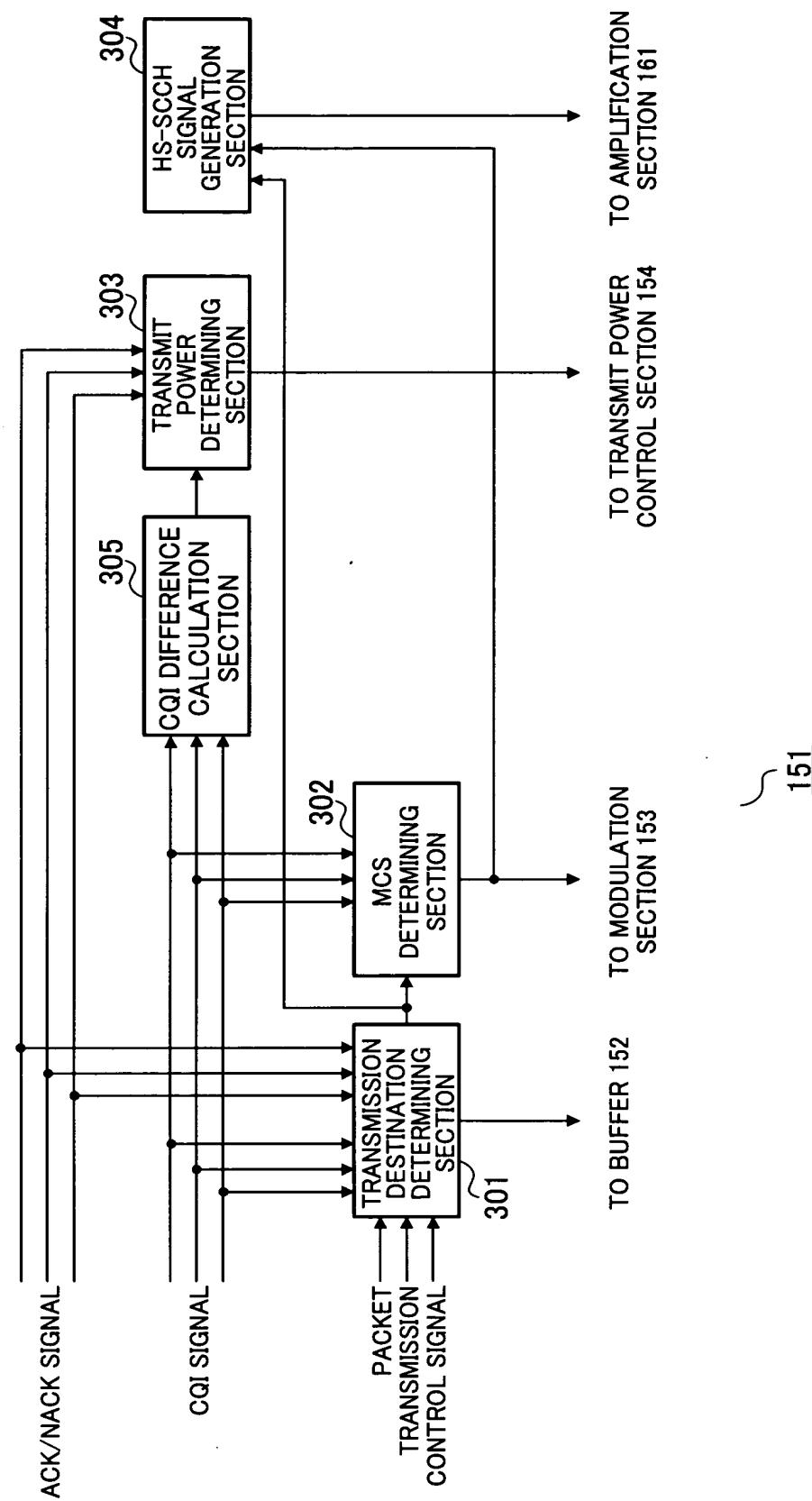


FIG.7

151

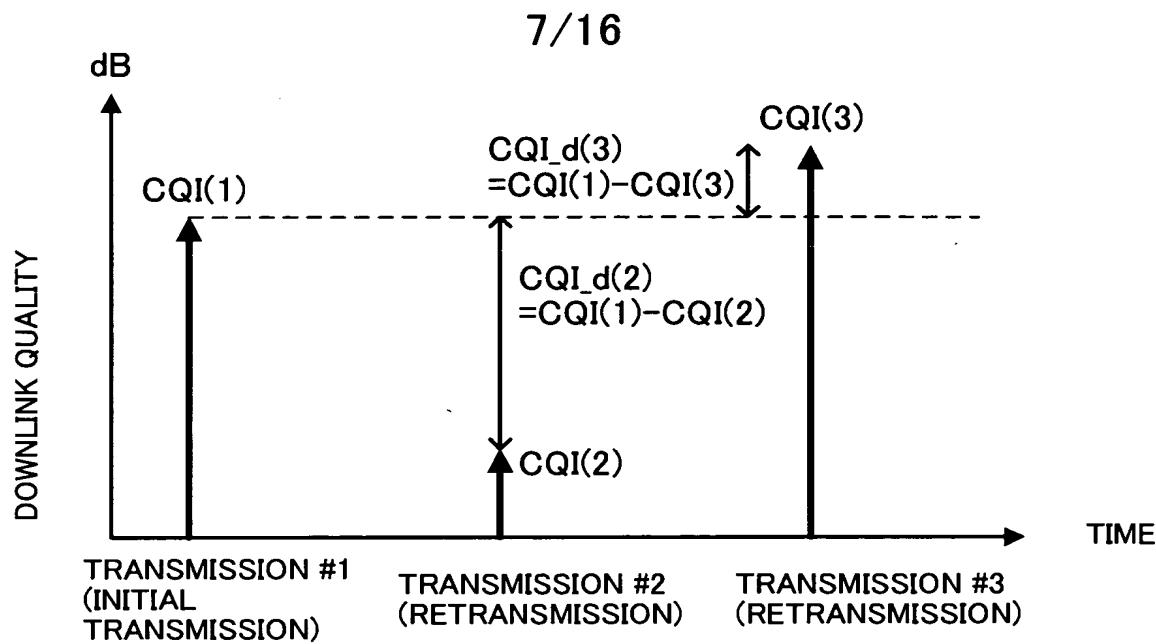


FIG.8

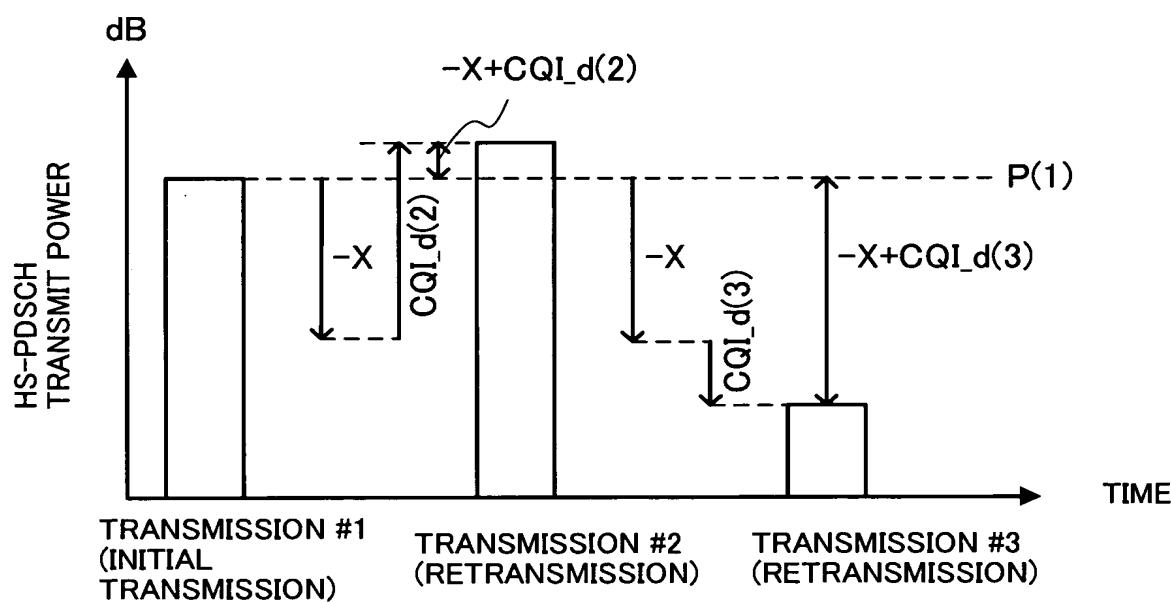


FIG.9

8/16

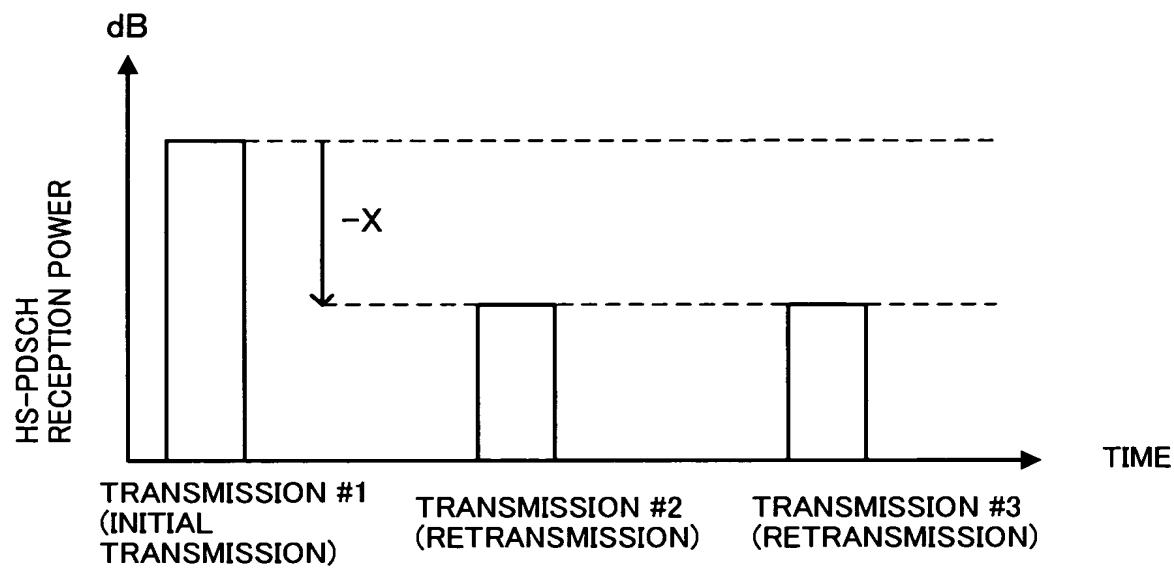
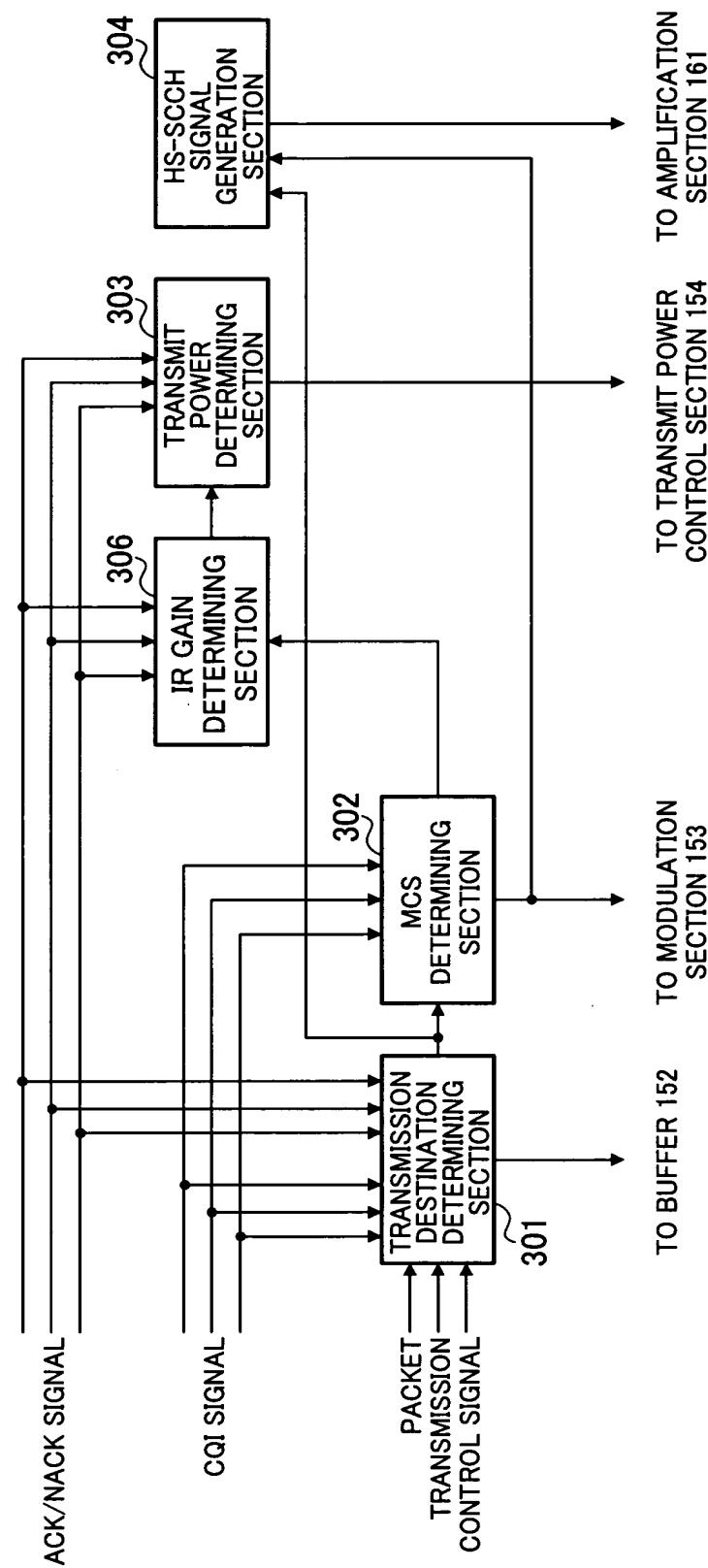


FIG.10

FIG.11  
151

10/16

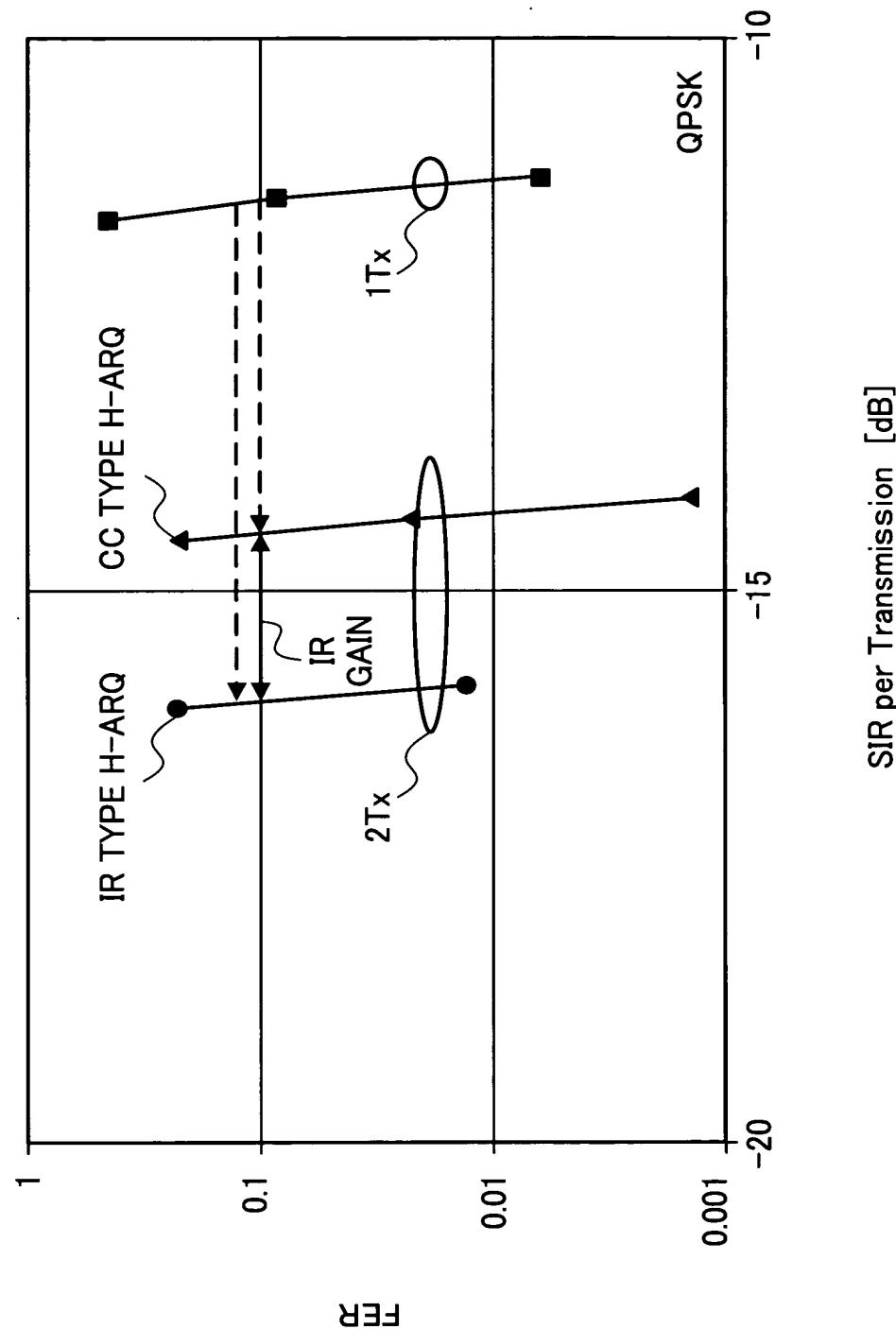


FIG.12

11/16

## QPSK

RETRANSMISSION PACKET	IR GAIN
TRANSMISSION #2	$Y(2)=2[\text{dB}]$
TRANSMISSION #3	$Y(3)=4[\text{dB}]$
TRANSMISSION #4	$Y(4)=6[\text{dB}]$
TRANSMISSION #5	$Y(5)=6[\text{dB}]$
TRANSMISSION #6	$Y(6)=6[\text{dB}]$

:

FIG.13

12/16

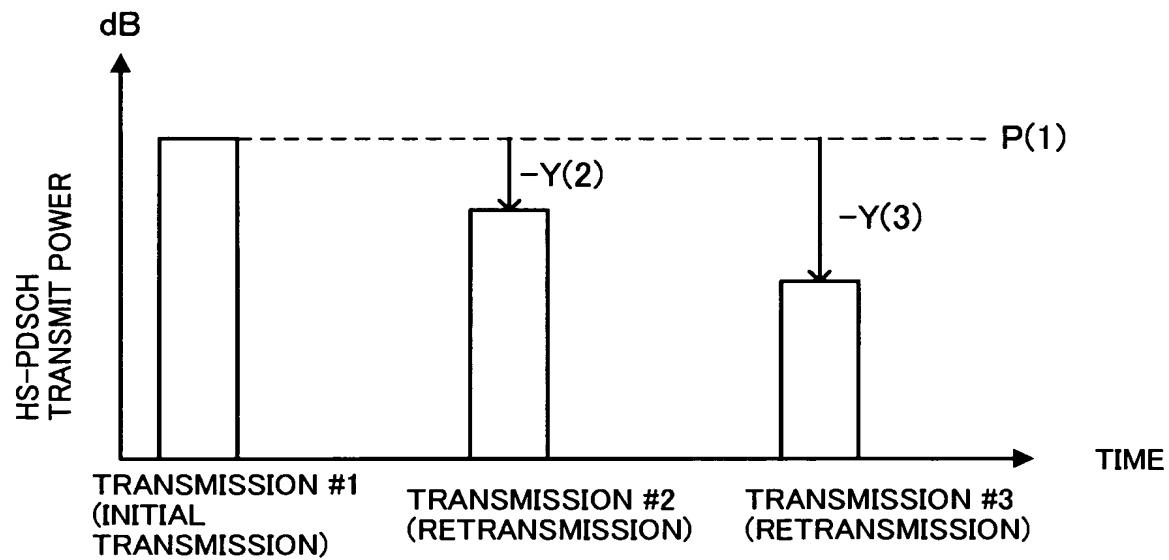


FIG.14

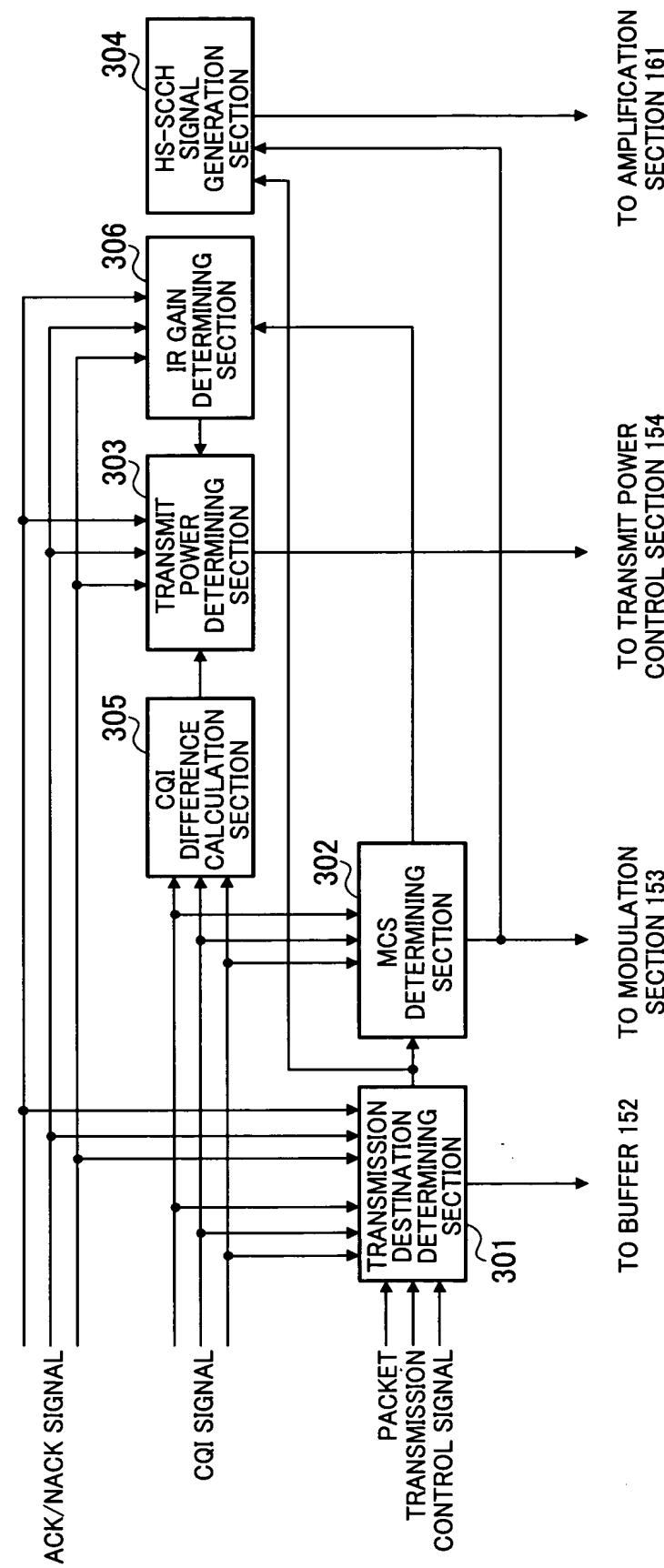


FIG.15

151

14/16

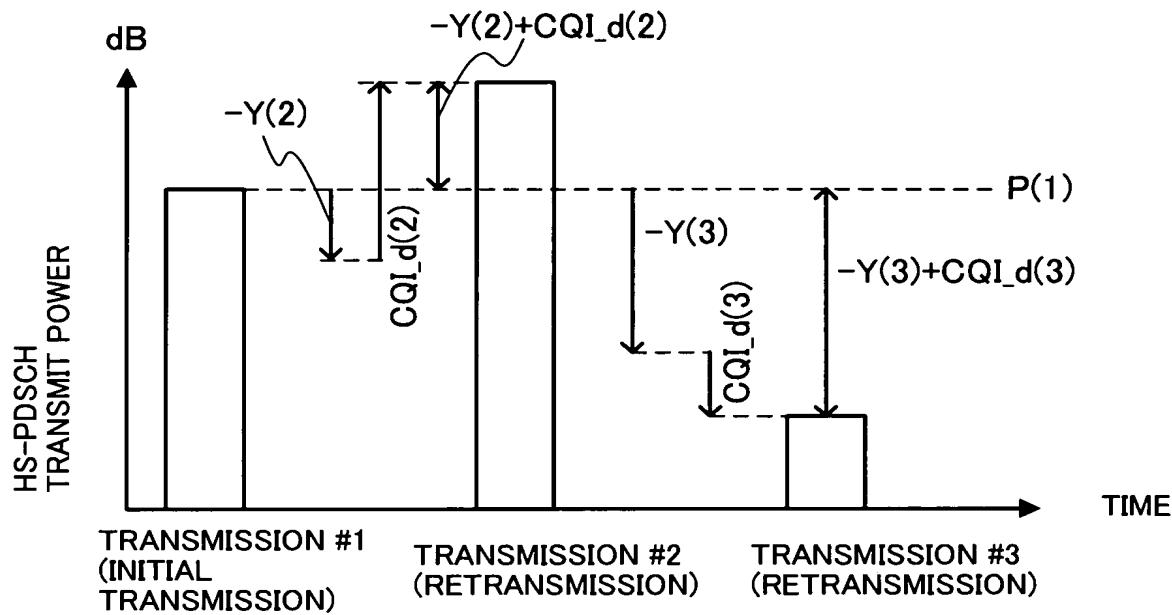


FIG.16

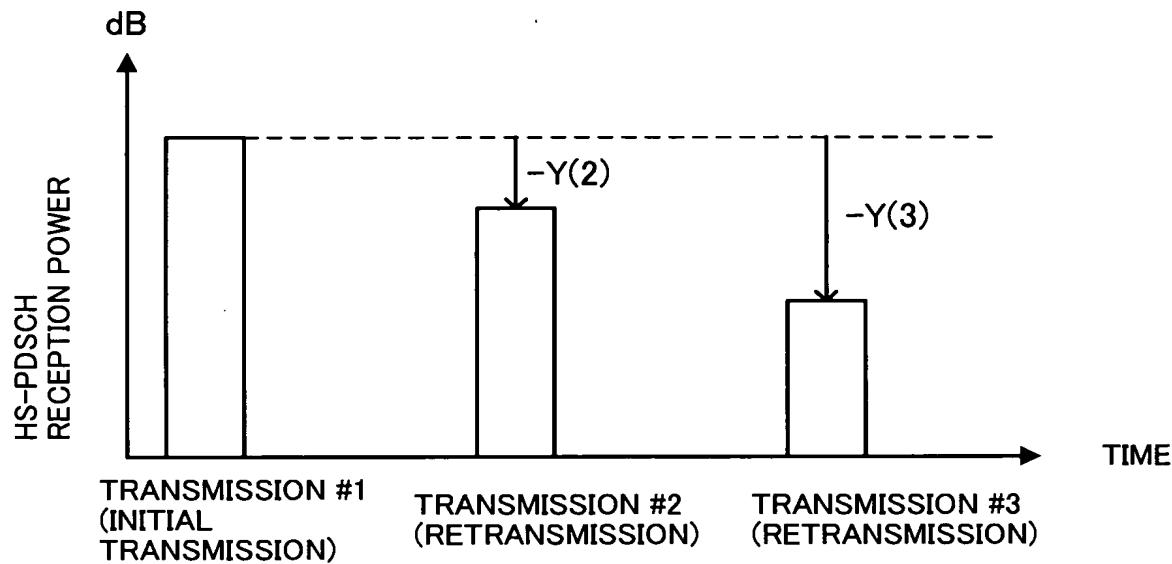


FIG.17

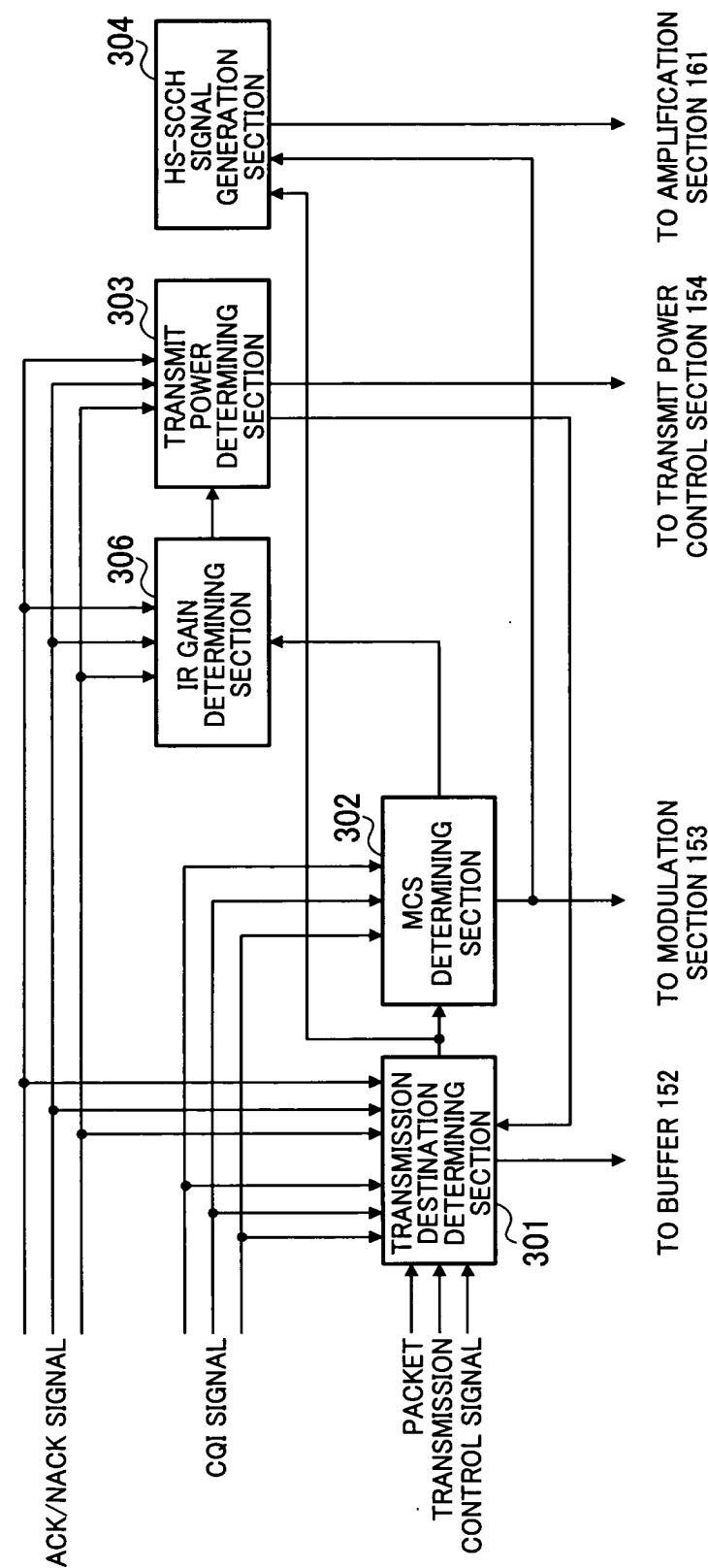


FIG.18

151

FIG.19A

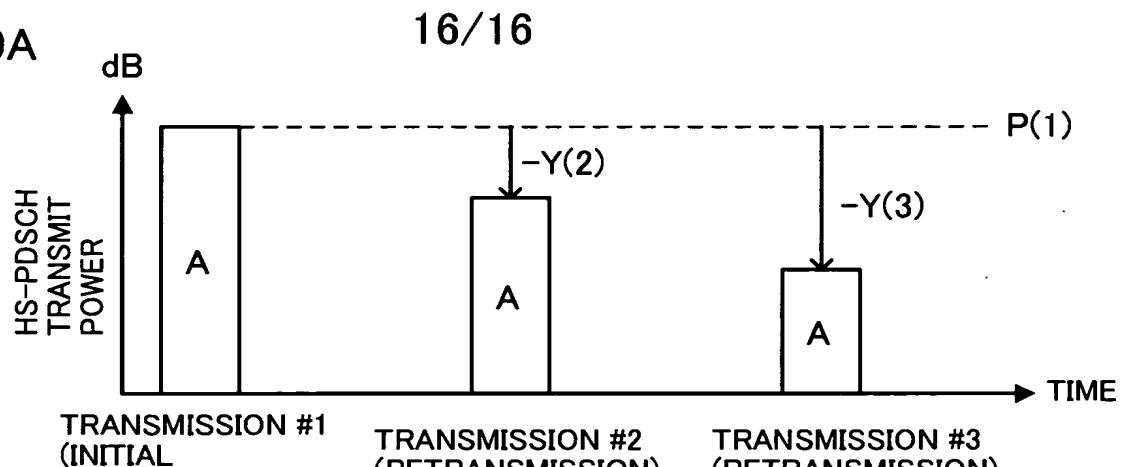


FIG.19B

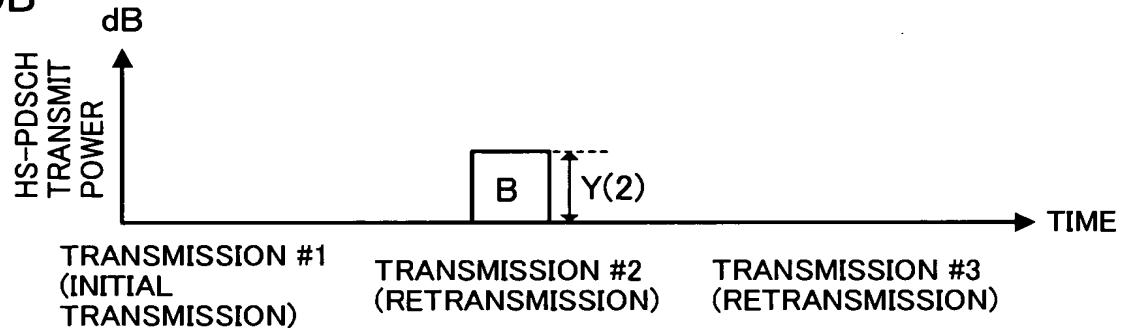


FIG.19C

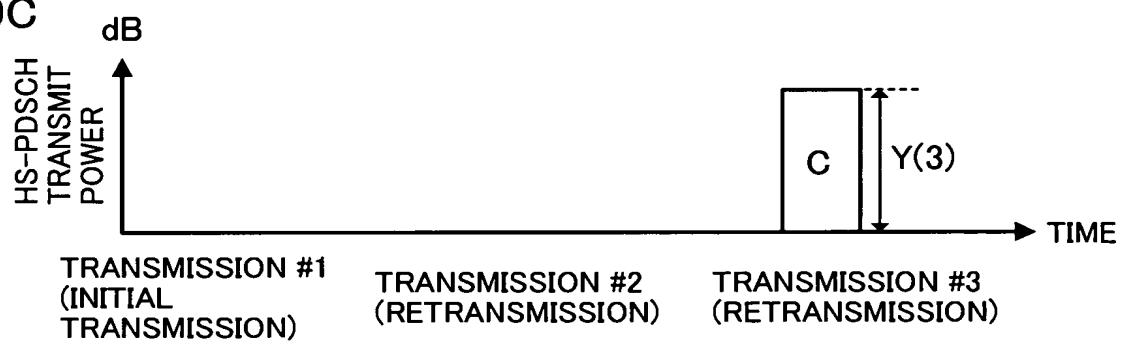


FIG.19D

